REMARKS

Claims 1-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Koo et al. (U.S. Patent Number 6,804,219, hereinafter "Koo") in view of Hjelm et al. (U.S. Patent Number 6,529,497, hereinafter "Hjelm") and clams 13-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Koo in view of Hjelm and Lohtia et al. (U.S. Patent Application Publication Number 2002/0082033, hereinafter "Lohtia"). Respectfully disagreeing with these rejections, reconsideration is requested by the applicants. Nonetheless, the claims have been specifically amended to more clearly express the invention and to address some potential unintended interpretations; however, the claims have not been amended to narrow their scope. Specifically, claim 1 has been amended to clarify that the time period for delaying dropping the data channel is based on the data rate.

Regarding the rejection of claims 1, 3, 4, 7 and 8, the Examiner cites Koo figure 2 unit 200, column 2 line 38, and column 2 lines 43-46 as teaching the claim language. Column 2 lines 34-50 reads (emphasis added):

> Upon completion of the negotiation about a service option, a data service object establishes a **DTCH for transmission of user data** and transits to an active state **140** . If the initialization fails, the packet null state **110** is transited to.
>
> In the active state 140, data is transmitted on the DTCH. If the data service object transits to the active state 140 after setting the service option and as a result, the DTCH is available, the base station and the mobile station perform initialization procedures of RLP (Radio Link Protocol) and PPP (Point-to-Point Protocol). **If data transmission is discontinued for a predetermined time T_Active in the active state 140, the DTCH is released and a control hold state 130 is entered**. If it is anticipated from an estimate of the amount of oncoming transmission data that a non-data transmission period will last longer, the active state 140 may be transited directly to a suspended state 150 or a dormant state 160 without interposing the control hold state 130.

Column 3 lines 46-67 (emphasis added):

> When transmission data is generated in a control hold state 230, the f/r DTCH is assigned on the FCH or DCCH and then the low rate transmission substate 220 is transited to. If it is preferable to transmit the user data on the FCH or DCCH, it is transmitted in the low rate transmission substate 220 and the control hold state 230 is entered. On the contrary, if a higher rate channel is required to transmit a large amount of user data, the SCH is additionally established in the low rate transmission substate 220 , the DTCH is assigned on the SCH, and then the high rate transmission substate 210 is entered. When the user data is completely transmitted on the SCH in the high rate transmission substate 210 or a predetermined duration time of the SCH expires, the high rate transmission substate 210 transits to the low rate transmission substate 220 . **If data transmission is discontinued for a predetermined time** in the low rate transmission substate 220, **the DTCH is released** and the control hold state 230 is entered. In case a large amount of data is generated within the predetermined time in the low rate transmission substate 220 or some user data remains from the previous high rate transmission substate 210, the high rate transmission substate 210 is entered again.

On page 3 of the present office action, the Examiner notes that Koo fails to explicitly suggest delaying dropping the data channel for a time period based on the data rate. Instead, the Examiner cites Hjelm. However, the Examiner does not cite any specific passages in Hjelm. Hjelm is a 19 page document with 14 columns of text. It is not apparent to the applicants on what in Hjelm exactly the Examiner bases the present claim rejections. Thus, the applicants request the Examiner, if not persuaded to withdraw the present claim rejections, to cite specific passages of Hjelm in a subsequent non-final office action.

In the rejections of claims 1, 3, 4, 7 and 8, the Examiner simply states that "Hjelm teaches a method for a packet data service that releases a channel by starting a timer when there is no more traffic ongoing on a channel, i.e. data rate=0, and then releasing that channel when the timer expires." Without a specific reference in Hjelm to focus on, the applicants will presume, for the sake of argument, that Hjelm teaches what the Examiner states. However, the applicants reserve the right to later dispute the Examiner's characterization of Hjelm's teaching.

First, the applicants submit that the Examiner's statement that "Hjelm teaches...starting a timer when there is no more traffic ongoing on a channel, i.e. data rate=0," stretches the meaning of a data rate somewhat. The applicants submit that if there is no more traffic ongoing on a channel, then there is no data. Of course then, the instantaneous rate of no data is 0, but this is somewhat artificial since all measures

regarding the transfer of data are somewhat meaningless since there is no data and all measures just reflect that there is no data, regardless what they are otherwise intended to measure. Thus, Hjelm would seem to teach starting a timer based on whether there is traffic on a channel, i.e., based on whether there is data, rather than a derived data rate.

Second, the applicants submit that the Examiner's statement that "Hjelm teaches…starting a timer when there is no more traffic ongoing on a channel, i.e. data rate=0," relies on some assumptions about what a data rate is to be valid. For example, it relies on "data rate" to refer to either an instantaneous data rate or data rate that is calculated based on an interval that does not include any of the data transferred before the traffic stopped. Again, the applicants submit that Hjelm would seem to teach starting a timer based on whether there is traffic on a channel, i.e., based on whether there is data.

In contrast to the cited art, independent claim 1 recites (emphasis added) "transmitting data over a wireless data channel **at a data rate…and delaying dropping the data channel for a time period based on *the* data rate**." The applicants submit that Koo does not teach delaying the dropping of the DTCH of Koo (used for the transmission of user data) based on the data rate of data transmitted over the DTCH; and furthermore, the applicants fail to see how the teachings of Hjelm can be combined with Koo to suggest delaying the dropping of the DTCH based on the data rate of the DTCH. Independent claim 4 recites (emphasis added) "prior to operating the data transmitter in a Control Hold state, **delaying transition to the Control Hold state for a period of time**, wherein the period of time is **based on a data rate**." The applicants submit that Koo does not teach delaying a transition to a control hold state based on any data rate; and furthermore, the applicants fail to see how the teachings of Hjelm can be combined with Koo to suggest delaying a transition to a control hold state based on any data rate. Independent claim 7 recites (emphasis added) "a timer coupled to the channel circuitry, wherein the timer **delays deactivation of the channel circuitry after data transmission for a period of time, wherein the period of time is based on a data rate**." The applicants submit that Koo does not teach delaying deactivation of the channel circuitry of the DTCH of Koo based on a data rate; and furthermore, the

applicants fail to see how the teachings of Hjelm can be combined with Koo to suggest delaying deactivation of the channel circuitry of the DTCH based on the data rate of the DTCH.

Furthermore, dependent claim 3 recites (emphasis added) "**delaying dropping the data channel for a time period**, wherein the time period is **proportional to the data rate**." Dependent claim 8 recites (emphasis added) "wherein the period of time is **proportional to the data rate**." The applicants submit that neither Koo nor Hjelm, as cited by the Examiner, teaches that a delay period (i.e., the period of time to delay), such as described in these claims, should be based on a data rate or **proportional** to a data rate. The applicants do not see how the cited texts suggest any kind of proportional relationship such as that claimed.

Regarding claims 13 and 14, the Examiner cites Lohtia [0024] and [0028-0029] as teaching the claim language. Lohtia [0024] - [0029] reads (emphasis added):

> [0024] To communicate signaling and user data between the mobile station 12 and the base station system 14, a temporary block flow (TBF) is established either on the uplink 16 or the downlink 18 (depending on which of the peer entities is initiating the control signaling or data transfer). The data communicated between the mobile station 12 and the base station system 14 according to EGPRS are carried in logical link control (LLC) protocol data units (PDUs) on packet data channels (PDCHs). Each TBF is allocated radio resources on one or more PDCHs and comprises a number of RLC/MAC (radio link control/medium access control) blocks carrying one or more LLC PDUs. **A TBF is temporary and is typically maintained for the duration of a data transfer (until there are no more RLC/MAC blocks to be transmitted and, in RLC acknowledged mode, all of the transmitted RLC/MAC blocks have been successfully acknowledged by the receiving entity)**.
> ...
> [0028] Typically, on the uplink 16, a mobile station sends an indication to the radio access network system (the base station system 14 in FIG. 1) as soon as the mobile station determines that its RLC/MAC send buffer is empty. In one embodiment, this indication is in the form of a countdown value (CV) set to the value zero. **When the base station system 14 detects the end of the TBF (that is, when CV equals zero)**, the base station system 14 sends a PACKET UPLINK ACK/NACK message with a Final Ack Indicator bit set to the value "1." Upon reception of the PACKET UPLINK ACK/NACK message, the mobile station 12 transmits a PACKET CONTROL ACKNOWLEDGMENT message and releases the TBF.
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> [0029] On the downlink 18, the base station system 14 initiates the release of a downlink TBF by sending an RLC **data block with a Final Block Indicator** (FBI) parameter set to the value "1." Thus, on the downlink, the indication of end of data transmission is

> provided by the FBI parameter in an RLC data block. In response to receiving an RLC data block with the FBI bit set to the value "1," the mobile station 12 transmits a PACKET DOWNLINK **ACK/NACK** message in a specified uplink block. Once the mobile station 12 has received all RLC data blocks of the TBF, the mobile station 12 then sends a PACKET DOWNLINK **ACK/NACK** message with the Final Ack Indicator bit set to the value "1." Upon receiving the PACKET DOWNLINK ACK/NACK message, the base station system 14 releases the TBF after certain events occur.

Dependent claim 13 recites (emphasis added) "**delaying termination of the TBF by transmitting dummy data** over the wireless data channel." Dependent claim 14 recites (emphasis added) "means for **delaying termination of the TBF by transmitting dummy data** over the data channel." Therefore, the applicants submit that the paragraphs cited by the Examiner do not teach or suggest the language of claims 13 or 14, since Lohtia [0024] and [0028-0029] do not suggest delaying TBF termination by transmitting dummy data. Rather Lohtia [0024] and [0028-0029] describe sending a countdown value (CV) set to the value zero and a final data block (not dummy data) followed by the requisite acknowledgment messaging. The applicants submit that the acknowledgment messaging described is neither suggestive of sending data (but rather suggests control signaling to indicate the receipt of data) nor suggestive of sending dummy data, in particular.

In the *Response to Arguments* section of the present office action, the Examiner asserts that the countdown value (CV) set to the value zero could be equivalent to dummy data because it does not have actual information that the devices were trying to exchange. However, Lohtia [0028] describes the base station system 14 using CV=0 to detect the end of the TBF. Thus, the countdown value (CV) set to the value zero carries control information marking the end of the TBF, in contrast to delaying termination of the TBF by transmitting dummy data over the data channel.

Since none of the references cited, either independently or in combination, teach all of the limitations of independent claims 1, 4 or 7, or therefore, all the limitations of their respective dependent claims (in addition to the arguments above regarding dependent claims 3, 8, 13 and 14), it is asserted that neither anticipation nor a prima facie case for obviousness has been shown. No remaining grounds for rejection or objection being given, the claims in their present form are asserted to be patentable

over the prior art of record and in condition for allowance. Therefore, allowance and issuance of this case is earnestly solicited.

The Examiner is invited to contact the undersigned, if such communication would advance the prosecution of the present application. Lastly, please charge any additional fees (including extension of time fees) or credit overpayment to Deposit Account No. **502117 -- Motorola, Inc**.

Respectfully submitted,
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